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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,168	11/17/2003	Yasunori Kawamoto	4041K000101D	4085

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EXAMINER

JOHNSON, JONATHAN J

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,168

Applicant(s)

KAWAMOTO ET AL.

Examiner

Jonathan Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 10, 12, 13 and 18-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 11, 14-17 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-26 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/300402.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-17-03; 10-6-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 9,11,14-17, and 23-26 in the reply filed on 9-14-05 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9,11,14-17, 23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,452,132 (Fuse). Fuse teaches a simultaneous block melting apparatus comprising a laser source generating a laser beam (col. 7, l. 12, laser); a diffraction element shaping said laser beam into a predetermined shape (col. 7, ll. 10-12); a focusing element focusing the predetermined shape laser beam onto the target area of a worked material, said predetermined shaped laser beam simultaneously melting substantially all of the worked material irradiated by the predetermined shaped laser beam (col. 7, ll. 10-25).; where the laser source generating a laser beam having a predetermined beam shape (figure 11, beam prior to passing through the DOE); a diffraction type optical element outputting the laser beam having a predetermined beam shape by diffraction and transmission of the laser beam input from the laser source (col. 7, ll. 10-25); and

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a condensing lens condensing the laser beam output from the diffraction type optical element and orienting to said object to be melted (col. 7, ll. 10-20); where the DOE outputs a laser beam having a beam shape different from the shape of the laser beam so as to focus a laser beam correspond to the shape of at least one joint portion formed on the object (figure 11, beam entering and exiting the DOE); wherein the DOE outputs a laser beam having a shape splitting into a plurality of beams so that the joint is formed at a plurality of positions away from each other on the object (figure 11, item 15); where the condensing lens is single and where the plurality beam are focused simultaneously and respectively (figure 11, item 14); where the DOE outputs a beam having a linear shape so that the joint is formed linearly extending on the object (figure 11, beams); a lens disposed between the laser source and said diffraction type optical element, adjusting the laser beam output from the laser source to a predetermined diffusion angle, then inputting the same into the diffraction type optical element (figure 11, item 1 and 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,452,132 (Fuse) as applied to claim 23 above and further in view of JP 3-207593 (Yamaguchi).

Yamaguchi teaches providing a cooling unit for a lens that manipulates a laser beam (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to

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modify the DOE lens of Fuse to utilize a cooling unit in order to prevent the deterioration of the lens (see Yamaguchi abstract).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,452,132 (Fuse) as applied to claim 25 above and further in view of JP 3-207593 (Yamaguchi).

Yamaguchi teaches providing a cooling unit for a lens that manipulates a laser beam (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the DOE lens of Fuse to utilize a cooling unit in order to prevent the deterioration of the lens (see Yamaguchi abstract).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177.

The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Johnson
Primary Examiner
Art Unit 1725

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